

February 13, 2014

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
CERTIFIED NUMBER 7006 2760 0005 5304 2269

Chief, Environmental Enforcement Section Environment and Natural Resources Division U.S. Department of Justice Box 7611 Ben Franklin Station Washington, D.C. 20044-7611 Re: DOJ No. 90-5-2-1-08850/1

CERTIFIED NUMBER 7006 2760 0005 5304 2276

David Lloyd Air, Pesticides and Toxics Management Division Air and EPCRA Enforcement Branch U.S. Environmental Protection Agency, Region 4 61 Forsythe Street Atlanta, GA 30303

CERTIFIED NUMBER 7006 2760 0005 5304 2283

Mr. Sean Alteri Acting Director Kentucky Division for Air Quality 200 Fair Oaks Lane, 1st Floor Frankfort, KY 40601

Re: United States v. Kentucky Utilities Co., Case No: 3:12-cv-00076-GFVT; Deviation Report for Event Occurring on January 30, 2014 at KU's Ghent Generating Station

To whom it may concern:

Pursuant to Paragraph 26 of the Consent Decree in *United States v. Kentucky Utilities Co.*, Case No: 3:12-cv-00076-GFVT (E.D. Ky. August 21, 2013), please find enclosed a deviation report submitted for an event that occurred at Kentucky Utilities' Ghent Unit 3 on January 30, 2014.

LG&E and KU Energy, LLC

220 West Main Street P.O. Box 32030 (40232)

Louisville, KY 40202

This report is being submitted consistent with the reporting provisions in Paragraph 23.d.ii. and Section VII (Periodic Reporting) of the Consent Decree and does not constitute an admission of any violation of the Consent Decree.

If there are any questions regarding the enclosed information, please contact me at (502) 627-4043 or jason.wilkerson@lge-ku.com.

Respectfully,

Environmental Affairs

Jason Wilkerson

LG&E and KU Energy, LLC

Enclosures

Ec: Clay Redmond - KDAQ Florence Regional Office Courtney Shattuck

Steven Turner – KU Ghent David Smith

Ralph Bowling – LG&E and KU Energy Gary Revlett Steve Noland Bob Ehrler



February 19, 2014

LG&E and KU Energy, LLC 220 West Main Street P.O. Box 32030 (40232) Louisville, KY 40202

CERTIFIED MAIL RETURN RECEIPT REQUESTED CERTIFIED NUMBER 7006 2760 0005 5304 2290

Chief, Environmental Enforcement Section Environment and Natural Resources Division U.S. Department of Justice Box 7611 Ben Franklin Station Washington, D.C. 20044-7611 Re: DOJ No. 90-5-2-1-08850/1

CERTIFIED NUMBER 7006 2760 00

David Lloyd

Air, Pesticides and T-Air and EPCRA E
U.S. Environmenta
61 Forsythe Street
Atlanta, GA 30303

CERTIFIED NUMBE

Mr. Sean Alteri Acting Director Kentucky Division for Air 200 Fair Oaks Lane, 1st Floo Frankfort, KY 40601

Re: United States v. Kentuck, Deviation Report for Eve. , 2014 at KU's Ghent Generating Station

To whom it may concern:

Pursuant to Paragraph 26 of the Consent Decree in *United States v. Kentucky Utilities Co.*, Case No: 3:12-cv-00076-GFVT (E.D. Ky. August 21, 2013), please find enclosed a deviation report submitted for an event that occurred at Kentucky Utilities' Ghent Unit 3 on February 5, 2014.

This report is being submitted consistent with the reporting provisions in Paragraph 23.d.ii. and Section VII (Periodic Reporting) of the Consent Decree and does not constitute an admission of any violation of the Consent Decree.

If there are any questions regarding the enclosed information, please contact me at (502) 627-4043 or jason.wilkerson@lge-ku.com.

Respectfully,

∄ason Wilkerson Environmental Affairs

LG&E and KU Energy, LLC

Enclosures

Clay Redmond - KDAQ Florence Regional Office Courtney Shattuck Ec:

Steven Turner – KU Ghent David Smith

Ralph Bowling – LG&E and KU Energy Gary Revlett Steve Noland Bob Ehrler

United States v. Kentucky Utilities Company, Case No. 3:12-cv-00076-GFVT (E.D. KY)

CONSENT DECREE DEVIATION REPORT

Pursuant to Paragraph 26 (Deviation Reports) of the Consent Decree in *United States v. Kentucky Utilities Co.*, Case No. 3:12-cv-00076-GFVT (E.D. Ky. Aug. 21, 2013) ("Consent Decree"), Kentucky Utilities submits the following Deviation Report.

Event Description and Corrective Measures

On February 5, 2014, KU recorded CAM excursions on Ghent Unit 3 during a Malfunction of the SAM emission control system. The 3-hour rolling average of the correlated SAM indicative monitor data, which serves as the primary performance indicator under KU's CAM plan for SAM emissions, was above the Interim SAM Emission Limit for Unit 3 for a four (4) hour period between 1:00 pm and 5:00 pm on February 5 (8ppm, 12ppm, 13ppm, and 11ppm). Consistent with its CAM plan, KU responded to the excursion by investigating the SAM indicative monitoring system to identify any data issues and evaluating the sorbent injection system for potential performance issues.

KU identified the Malfunction as a partial pluggage of the injection system and took corrective action as follows. Around 12:00 pm that day, the FGD inlet injection location began experiencing sorbent material pluggage issues. Operating personnel began working to resolve the issue at that time. When it was determined that the pluggage issue may take several hours to resolve, KU reduced unit load to minimize SAM emissions during the repair. Following the reduction in unit load, the correlated SAM indicative monitor data readings began to fall. By 5:00pm, the 3-hour rolling average of correlated SAM indicative monitor data was below the Interim SAM Emission Limit for Unit 3. By around 6:30pm, the SAM emission control system pluggage issue was resolved and the unit was returned to normal load to serve electric load demands.

Because KU complied with its CAM plan as contemplated under Paragraph 23.d.i. of the Consent Decree, KU does not consider the CAM excursion to be a deviation from or violation of the Consent Decree. However, KU is reporting this excursion as a conservative measure consistent with Paragraph 23.d.ii.

* * * *

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I understand that significant civil and/or criminal penalties may be imposed for submitting false, inaccurate, or incomplete information to the United States.

Ralph Bowling
Vice President, Power Production

LG&E and KU Energy

Submitted: 2/19/2014



February 28, 2014

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
CERTIFIED NUMBER 7006 2760 0005 5304 2405

Chief, Environmental Enforcement Section Environment and Natural Resources Division U.S. Department of Justice Box 7611 Ben Franklin Station Washington, D.C. 20044-7611 Re: DOJ No. 90-5-2-1-08850/1

CERTIFIED NUMBER 7006 2760 0005 5304 2412

David Lloyd Air, Pesticides and Toxics Management Division Air and EPCRA Enforcement Branch U.S. Environmental Protection Agency, Region 4 61 Forsythe Street Atlanta, GA 30303

CERTIFIED NUMBER 7006 2760 0005 5304 2429

Mr. Sean Alteri Director Kentucky Division for Air Quality 200 Fair Oaks Lane, 1st Floor Frankfort, KY 40601

Re: *United States v. Kentucky Utilities Co.*, Case No: 3:12-cv-00076-GFVT; Deviation Report for Event Occurring on February 15, 2014 at KU's Ghent Generating Station

LG&E and KU Energy, LLC

220 West Main Street P.O. Box 32030 (40232)

Louisville, KY 40202

To whom it may concern:

Pursuant to Paragraph 26 of the Consent Decree in *United States v. Kentucky Utilities Co.*, Case No: 3:12-cv-00076-GFVT (E.D. Ky. August 21, 2013), please find enclosed a deviation report submitted for an event that occurred at Kentucky Utilities' Ghent Unit 3 on February 15, 2014.

This report is being submitted consistent with the reporting provisions in Paragraph 23.d.ii. and Section VII (Periodic Reporting) of the Consent Decree and does not constitute an admission of any violation of the Consent Decree.

If there are any questions regarding the enclosed information, please contact me at (502) 627-4043 or jason.wilkerson@lge-ku.com.

Respectfully,

Jason Wilkerson Environmental Affairs

LG&E and KU Energy, LLC

Enclosures

United States v. Kentucky Utilities Company, Case No. 3:12-cv-00076-GFVT (E.D. KY)

CONSENT DECREE DEVIATION REPORT

Pursuant to Paragraph 26 (Deviation Reports) of the Consent Decree in *United States v. Kentucky Utilities Co.*, Case No. 3:12-cv-00076-GFVT (E.D. Ky. Aug. 21, 2013) ("Consent Decree"), Kentucky Utilities ("KU") submits the following Deviation Report.

Event Description and Corrective Measures

On February 15, 2014, KU recorded CAM excursions on Ghent Unit 3 during a Malfunction of the SAM emission control system. The 3-hour rolling average of the correlated SAM indicative monitor data, which serves as the primary performance indicator under KU's CAM plan for SAM emissions, was above the Interim SAM Emission Limit for Unit 3 for a two (2) hour period between 12:00 pm and 2:00 pm on February 15 (9ppm and 8ppm). Consistent with its CAM plan, KU responded to the excursion by investigating the SAM indicative monitoring system to identify any data issues and evaluating the sorbent injection system for potential performance issues.

KU identified the Malfunction as a loss of sorbent material feed caused by a broken chain for a rotary air lock mechanism and took corrective action as follows. Around 11:00 am that day, the chain for the drive mechanism of the rotary air lock of the sorbent material silo serving the FGD inlet injection location broke causing the inability to send sorbent material to that injection location. With continued sorbent material injection at the unit's other injection location, operating personnel began working to resolve the malfunction. When it was determined that the repair may take several hours to resolve, KU reduced unit load to minimize SAM emissions during the repair. Following the reduction in unit load, the correlated SAM indicative monitor data readings began to fall. By around 1:30pm, the SAM emission control system sorbent material feed issue was resolved. By 2:00pm, the 3-hour rolling average of correlated SAM indicative monitor data was below the Interim SAM Emission Limit for Unit 3 and the unit was returned to normal load to serve electric load demands.

Because KU complied with its CAM plan as contemplated under Paragraph 23.d.i. of the Consent Decree, KU does not consider the CAM excursion to be a deviation from or violation of the Consent Decree. However, KU is reporting this excursion as a conservative measure consistent with Paragraph 23.d.ii.

* * * *

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I understand that significant civil and/or criminal penalties may be imposed for submitting false, inaccurate, or incomplete information to the United States.

Ralph Bowling

Vice President, Power Production

LG&E and KU Energy

Submitted: 2/28/2014

Ec:

Clay Redmond - KDAQ Florence Regional Office Courtney Shattuck

Steven Turner – KU Ghent David Smith

Ralph Bowling – LG&E and KU Energy Gary Revlett Steve Noland Bob Ehrler



August 25, 2014

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
CERTIFIED NUMBER 7006 2760 0005 5304 0739

Chief, Environmental Enforcement Section Environment and Natural Resources Division U.S. Department of Justice Box 7611 Ben Franklin Station Washington, D.C. 20044-7611 Re: DOJ No. 90-5-2-1-08850/1

CERTIFIED NUMBER 7006 2760 0005 5304 0722

David Lloyd Air, Pesticides and Toxics Management Division Air and EPCRA Enforcement Branch U.S. Environmental Protection Agency, Region 4 61 Forsythe Street Atlanta, GA 30303

CERTIFIED NUMBER 7006 2760 0005 5304 0104

Mr. Sean Alteri Director Kentucky Division for Air Quality 200 Fair Oaks Lane, 1st Floor Frankfort, KY 40601

Re: *United States v. Kentucky Utilities Co.*, Case No: 3:12-cv-00076-GFVT; Deviation Report for Event Occurring on August 11-12, 2014 at KU's Ghent Generating Station

To whom it may concern:

Pursuant to Paragraph 26 of the Consent Decree in *United States v. Kentucky Utilities Co.*, Case No: 3:12-cv-00076-GFVT (E.D. Ky. August 21, 2013), please find enclosed a deviation report submitted for an event that occurred at Kentucky Utilities' Ghent Unit 4 on August 11-12, 2014.

This report is being submitted consistent with the reporting provisions in Paragraph 23.d.ii. and Section VII (Periodic Reporting) of the Consent Decree and does not constitute an admission of any violation of the Consent Decree.

If there are any questions regarding the enclosed information, please contact me at (502) 627-4043 or jason.wilkerson@lge-ku.com.

Respectfully,

Jason Wilkerson
Environmental Affairs

LG&E and KU Energy, LLC

Jason Wilkerson

Enclosures

LG&E and KU Energy, LLC 220 West Main Street P.O. Box 32030 (40232) Louisville, KY 40202

CONSENT DECREE DEVIATION REPORT

Pursuant to Paragraph 26 (Deviation Reports) of the Consent Decree in *United States v. Kentucky Utilities Co.*, Case No. 3:12-cv-00076-GFVT (E.D. Ky. Aug. 21, 2013) ("Consent Decree"), Kentucky Utilities ("KU") submits the following Deviation Report.

Event Description and Corrective Measures

On August 11, 2014 and August 12, 2014, KU recorded CAM excursions on Ghent Unit 4 during a Malfunction of the SAM emission control system. On August 11, 2014, the primary performance indicator (i.e., SAM indicative monitor) under KU's CAM plan for SAM emissions was removed from service for maintenance. Consistent with its CAM plan, KU relied on the alternate performance indicator (i.e., sorbent material injection rates) for indication of SAM emission control system performance during the period of monitor maintenance. On August 11 and 12, three-hour rolling average sorbent material injection rates for certain of the injection locations intermittently fell below the minimum injection rates for those injection locations as described in the July 2014 revised Ghent CAM plan for SAM emissions.²

KU immediately investigated the excursions and determined that the reduced sorbent material injection rates were caused by a Malfunction of the sorbent material feeders for the Ghent Unit 4 sorbent injection system. KU attempted to regain the proper sorbent material injection rates by swapping the sorbent material feeders with available spare feeders located on-site. Additionally, KU reduced load on Ghent Unit 4 to reduce the amount of sorbent required to meet the minimum injection rates described in the July 2014 revised Ghent CAM plan for SAM emissions. On August 12, 2014 at 11:34am, the SAM indicative monitor was placed back in service and Ghent Unit 4 was returned to normal load to serve electric load demands. Indicative monitor readings following this return to normal load indicated no CAM excursions.

Because KU complied with its CAM plan as contemplated under Paragraph 23.d.i. of the Consent Decree, KU does not consider the CAM excursion to be a deviation from or violation of the Consent Decree. However, KU is reporting this excursion as a conservative measure consistent with Paragraph 23.d.ii.

* * * *

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I understand that significant civil and/or criminal penalties may be imposed for submitting false, inaccurate, or incomplete information to the United States.

Ralph Bowling Vice President, Power Production

LG&E and KU Energy

Submitted: 8/25/2014

¹ KU submitted a revised CAM plan on July 11, 2014, for approval by the Kentucky Division of Air Quality pursuant to the terms of the Consent Decree.

² Note that KU also injects hydrated lime at a continuous rate of 1500 lb/hr at the Unit 4 air heater inlet for abatement of ammonium bisulfate downstream of the injection locations identified in the CAM plan. When the additional sorbent injected at this location during this Malfunction event is considered, the total combined sorbent material injection rate for all locations substantially exceeded the combined rate identified by the CAM plan except for one hour on August 12 during which the rotary feeders were being changed to address the Malfunction.

United States v. Kentucky Utilities Company, Case No. 3:12-cv-00076-GFVT (E.D. KY)

CONSENT DECREE DEVIATION REPORT

Pursuant to Paragraph 26 (Deviation Reports) of the Consent Decree in *United States v. Kentucky Utilities Co.*, Case No. 3:12-cv-00076-GFVT (E.D. Ky. Aug. 21, 2013) ("Consent Decree"), Kentucky Utilities submits the following Deviation Report.

Event Description and Corrective Measures

On January 30, 2014, KU implemented a planned shutdown of Ghent Unit 3. In anticipation of the planned unit shutdown, KU initiated the process of shutting down the sorbent injection system used to control SAM emissions. Due to a shutdown sequencing issue, the SAM emission control system shutdown was not fully coordinated with the unit shutdown, resulting in a limited period of low sorbent injection before unit shutdown was completed and the unit went offline. This event resulted in a limited deviation from the requirement in Consent Decree Paragraph 20.a. to "Continuously Operate" Enhanced Sorbent Injection Controls at Unit 3.

As a result, KU recorded a CAM excursion during the Unit 3 shutdown. The 3-hour rolling average of the correlated SAM indicative monitor data, which serves as the primary performance indicator under KU's CAM plan for SAM emissions, was above the Interim SAM Emission Limit for Unit 3 for the 1-hour period between 2:00 pm and 3:00 pm on January 30 (11 ppm) prior to the unit going offline. Consistent with its CAM plan, KU responded to the excursion by investigating the SAM indicative monitoring system to identify any data issues and evaluating the sorbent injection system for potential performance issues. No corrective action was deemed necessary, and upon restart on February 1, 2014, the unit was returned to normal operation and sorbent injection rates with no excursions. Because KU complied with its CAM plan as contemplated under Paragraph 23.d.i. of the Consent Decree, KU does not consider the CAM excursion to be a deviation from or violation of the Consent Decree. However, KU is reporting this excursion as a conservative measure consistent with Paragraph 23.d.ii.

In addition to its initial response actions under the CAM plan, KU also is undertaking additional measures to prevent similar occurrences in the future. Personnel with responsibility for operation and shutdown of the sorbent injection systems on all Ghent units are being provided with refresher training regarding the protocols for operation of the sorbent injection systems during shutdown events.

* * *

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I understand that significant civil and/or criminal penalties may be imposed for submitting false, inaccurate, or incomplete information to the United States.

Ralph Bowling

Vice President, Power Production

LG&E and KU Energy

Submitted: 2/13/2014